SOUTHERN REGIONAL RESEARCH CENTER

On the Bayou



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Message from the Director

Dr. Deepak Bhatnagar

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SRRC 12 Publications This week we have finally received the funds for the remainder of fiscal year 2020. We can now plan our research and purchases for the rest of the year without interruption.

Very soon we will be hosting the SEA Business Operations Meeting at SRRC from March 3rd till 5th. We are expecting over 82 participants, including much of the higher leadership within ARS ... Our Administrator, Dr. Chavonda Jacobs-Young, Associate Administrator, Dr. Simon Liu, Deputy Administrator, Joon Park, Budget Director, Mike Arnold; Mr. Archie Tucker, Dr. Ellen Harris, Dr. Prasanna Gowda, and Theresa Joseph, as well as many other Center Directors and Research Leaders will be attending from the Southeast Area.

The meeting will be a great opportunity to showcase our Center, highlight our research programs, and communicate with ARS leadership.

Events and Observances

Combined Federal Campaign

Submitted by: Suzi Brashear

The Combined Federal Campaign has ended for 2019/2020. Thank you all for donating to your favorite charities with your money and time. I would also like to thank all the key workers for a job well done. I enjoyed working with all of you.

Below is a goal that was set for the last week for the MS Delta Thermometer Donations. This represents one week of donations in the MS Delta Area, of which we are a part. So, pat yourselves on the back and thank you.



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Events and Observances

New Dr. Martin Luther King, Jr. Service Day Committee volunteers at Second Harvest Food Bank

Submitted by: Jane McBride

On January 30th, SRRC's brand-new Dr. Martin Luther King, Jr. Service Day Committee participated in its inaugural event. Seven members (Janell Becker, Melissa Santos, Suhad Wojkowski, Suzanne Martin, Matt King, Shawndrika Reed and Jane McBride) went to the Second Harvest Food Bank in Harahan to volunteer in the Community Kitchen. The facilities were very impressive—a 200,000 square foot warehouse and commercial kitchen bustling with employees and volunteers preparing, cooking and packaging meals and dry goods to distribute. SRRC volunteers worked in the kitchen on two tasks: first, weighing out and bagging quantities of dry goods (rice mixes and spices) and packaging them for delivery. Second, assembling snack bags for children to eat during after-school programs as part of the Kids' Café initiative. It was a delightful surprise to see Sun Butter (developed right here at the SRRC) included in the snack bags!

Besides being a fun activity, the event was very rewarding for the team members personally. Combatting both food hunger and food waste, Second Harvest is the largest charitable anti-hunger organization in south Louisiana, distributing over 39 million pounds of food a year. Initiatives like the Kids' Café are very important to ensure children get something to eat outside of their school day, as many children rely on free breakfast and lunch programs at school as their only stable source of nutrition. With one in five families in Louisiana at risk of hunger, Second Harvest is always in need of donations and volunteers. Please visit https://no-hunger.org/ if you would like to learn more about this fantastic organization!



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Scientific Presentations and Meetings

The Beltwide Cotton Conferences

Submitted by: Mike Dowd

The Beltwide Cotton Conferences were held in Austin, TX from Jan. 8 through the 10th. SRRC had several scientists and staff presenting and attending various meetings including an ARS cotton program review.

From the Center, Brian Condon, Christopher Delhom, Michael Dowd, Chanel Fortier, Hee-Jin Kim, Thomas Klasson, Yongliang Liu, Michael Santiago Cintron, and Kandan Sethumadhavan were in attendance. Several other ARS locations were also well represented at the meeting, including four National Program Leaders.



Hee-Jin Kim makes a presentation as part of the Cotton Improvement Conferences

Practice Presentations

Dr. Isabel Lima of the Commodity Utilization Research Unit gave a practice presentation on Thursday January 30 for her talk entitled: "Bagasse Biochar and Fly Ash – Cumulative Profits and Increased Commodity Value". This talk will be presented at the Annual Meeting of the American Society of Sugar Cane Technologists, Louisiana Division, in Baton Rouge on Feb 5, 2020.



Scientific Presentations and Meetings

Practice Presentations (cont.)

Dr. Jay Shockey of the Commodity Utilization Research Unit gave a practice talk on Tuesday February 4th in advance of his invited talk at the 2020 World Congress on Oils and Fats in Sydney, Australia on February 9-12, 2020. The title of his talk will be "Using CRISPR/Cas9 and other molecular tools to create lipid mutant plant lines with altered metabolic flux".



Scientific Presentations Series features Food and Feed Safety Research Unit

The third installment of our Scientific Presentations Series will be held on February 20, 2020 at 10:30 am in the Bayou Conference Room (MCR) and will feature the work of the Food and Feed Safety Research Unit. The Series gives us an opportunity to learn about the great work being done by our colleagues at the Center, and to facilitate collaboration and open communication.

Scientific Meetings Submitted by: Terri Von Hoven

February 2020 Scientific Conferences	City	Date
American Society of Sugar Cane Technologists Meeting	Baton Rouge, LA	Feb 3-5
International Conference on Agricultural Science	Phuket, Thailand	Feb 6-7
International Sweetener Colloquium	La Quinta, CA	Feb 23-26
Rice Technical Working Group Conference	Orange Beach, AL	Feb 24-27
Plant, Cellular and Molecular Biology Conference	Rome, Italy	Feb 25-27
International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering	Sydney, Australia	Feb 27-28

Scientific Recognition

ARS's own **Dr. Vince Edwards** has been selected as a 2019 Secretary's Honor Award recipient! He is the sole winner from REE. The 70th Annual Secretary's Honors Awards Ceremony took place on February 3rd.

Dr. Edwards is being recognized for development of a cotton-based wound dressing resulting in a commercial product used for battlefield and emergency response applications to trauma.

A hearty Congratulations to Dr. Edwards for receiving this distinguished recognition.







Getting into the Mardi Gras Spirit
SRRC staff, led by Mia Schexnayder, decorated our Mardi Gras Tree in the Lobby.

Safety Corner

Submitted by: Shannon Beltz

Hello everyone! February is Safety & Biosafety Awareness Month, which means we have many training opportunities. Below is the listing of webinars offering by SHEMB (ARS Safety HQ).

PLEASE NOTE:

- There are two webinars offered on Thursday 2/6 while Shelia & Darrell will be here at SRRC. Shelia is encouraging all of us (including myself) to attend these webinars and not to worry about being absent from your lab during their inspections. She feels like the training is more important and does not want anyone to miss the webinars in an effort to be present in the lab. So do not hesitate to attend even though they will be inspecting our facility.
- NONE of these are mandatory, however the 'Safety Inspections' and 'Using the New JHA' topics are highly applicable to everyone.
- I will be sending e-mail to certain groups who I think would benefit from specific webinars. Please do your best to attend if I send a specific invitation to you.

2020 Biosafety, Safety Awareness Month Schedule of Presentations

Thursday, February 6, 2020

12:30-1:30 pm, Main Conference Room

Safety Inspections, *Presented by Brett Beall, OSHA Compliance Assistant Specialist* Presentation will focus on preparing for and conducting safety inspections and is appropriate for any person responsible for conducting safety and occupational health inspections.

1:45-2:45 pm, Main Conference Room

Accident Investigations, *Presented by Brett Beall, OSHA Compliance Assistant Specialist* Presentation will focus on how to prepare for and conduct accident investigations and is geared towards supervisors, safety professionals and CDSOs.

Monday, February 10, 2020

1:00- 2:00 pm, Director's Conference Room

Occupational Medical Surveillance for Field Work, Presented by Dr. Lee Wugofski, Medical Review Officer for ARS

Presentation will discuss identifying potential hazards and exposures common in field and agricultural work sites.

Tuesday, February 18, 2020

12:00-1:15 pm, Director's Conference Room

Using the New Job Hazard Analysis (JHA), Presented by Ken Cushman, PWA Safety & Occupational Health Manager, and Megan Kennedy, WRRC Safety & Occupational Health Specialist

During this webinar, the audience will help complete a JHA for a relatable, real-world process.

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Safety Corner (cont.)

Tuesday, February 18, 2020 (cont.)

2:00-3:00 pm, Director's Conference Room

Silica Sampling, Presented by Shanna Henk, PA Safety & Occupational Health Manager

This presentation will cover key information regarding the silica standard, including sampling methods, expectations during sampling, interpret lab results, and what to do with the results. It is geared toward location safety, supervisors, and potentially exposed employees (i.e., those who work with soils or sand; those who use tractors and other farming equipment that causes dirt to become airborne; and those who grind or saw cement, bricks, etc.).

Thursday, February 20, 2020

10:00 am, Director's Conference Room

Field Research Safety for Biosafety Professionals, Presented by Dr. Scott Patlovich, Assistant Vice President, Environmental Health & Safety from the University of Texas Health Science Center at Houston

This presentation will summarize some key field biosafety issues for consideration and provide a list of field research safety resources that biosafety professionals within the USDA may find useful.

Friday, February 21, 2020

10:30 am -11:45 pm, Director's Conference Room

Using the New JHA (an additional offering), Presented by Ken Cushman, PWA Safety & Occupational Health Manager, and Megan Kennedy WRRC Safety & Occupational Health Specialist During this webinar, the audience will help complete a JHA for a relatable, real-world process.



SRRC staff show off their LSU spirit and their purple and gold to support LSU in the College Football National Championship game.

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Human Resources Corner

All Staff Meeting

We had our first 2020 staff meeting on January 23rd in the Bayou Conference Room. Dr Deepak Bhatnagar started the meeting by thanking all the volunteers on the many SRRC committees. These committees and their activities bring us together and help us work more efficiently.

The next major topic was infrastructure improvements: new doors/frames and flooring in the east and west textile building entrances, new stair treads in chemical and administrative wing stairwells, new walkway to the greenhouse, new energy efficient textile building windows, and finally the new BSL-2 head house and expanded greenhouse bays.

Dr. Bhatnagar touched upon performance plans, our first quarter reviews, and IDPs, once again stressing the importance of reading these documents and having ongoing discussions with supervisor.

Our new seminar series has been a well-attended event with CU and CCU research units already making their presentations; and the work of FFS is featured next. Deepak also encouraged more practice sessions because they are a good opportunity for the presenter to get feedback, and the staff gets to learn the science.

Dr. Bhatnagar summarized the significance of these activities as opportunities for self-reflection and for understanding each other better socially and technically. All leading to a sense of pride in oneself, in our work, and in our workplace. Deepak congratulated Dr. Vince Edwards on receiving the USDA Secretary's Excellence in Science Award for his work on cotton-based wound dressings. His work has given national recognition to SRRC.

Finally, Deepak provided information on the status of hiring new staff and the 2020 Budget. In addition, Hans Wientjes gave an update on our security and fire alarm improvement projects.

Shannon Beltz followed with a presentation on Safety and the forthcoming SEA inspection on February 5-6. Shannon thanked all the volunteers, the chemical hygiene inspectors, the zone inspectors and the biological inspectors. She summarized what we do well and areas that need improvement along with general guidance for the inspection.

Some infrastructure improvements presented:







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Human Resources Corner (cont.)

Georgina Acosta accepts new position with DOI

Submitted by: Deepak Bhatnagar

Ms. Georgina Acosta, Program Analyst with SRRC has accepted a position with the Department of Interior, and her last day at SRRC was Friday, January 17th. This is career growth opportunity for her, and we wish her all the best in her new position.

Georgina joined ARS in 1991 as Administrative/Personnel Clerk at our Center, and in 1993 became the Purchasing agent. She joined the Formosan Subterranean Termite Program in 1998, and soon thereafter was selected as the Program Analyst for the National Formosan Subterranean Termite Program. More recently, since 2011, she worked as Program Analyst for SRRC, while also providing support to the MSA/SEA offices, with primary responsibility for Poplarville, MS, New Orleans, Baton Rouge and Houma, LA Locations.



Ms. Acosta has served ARS in many capacities, demonstrating leadership in promoting diversity in the workforce, and for her efforts receiving USDA Secretary's Group Honor Award in 2003. She has also worked with the ARS Recruitment Office and served on the ARS Recruitment task force. She has served in a leadership role in working with the New Orleans Federal Executive Board for its HBCU outreach efforts. She was an invited guest speaker at the LULAC, Youth and Young Adult Conference. In 2005 she received the Federal Executive Board's award for her leadership in promoting Equal Employment Opportunity. Most recently, she was vice-chair for the very successful 75th Anniversary Celebrations of SRRC. She has also chaired numerous SRRC events and committees, including the EAC, CFC, and the Savings Bond Campaign.

New Orleans Federal Executive Board

Dr. Deepak Bhatnagar has been selected as the 2020 Chair of the Policy Committee of the New Orleans Federal Executive Board. The New Orleans Federal Executive Board (NOFEB) is comprised of senior officials from agencies located in the nine-parish region that typically makes up the Greater New Orleans Area, representing approximately 70 federal government agencies and an estimated Federal workforce of 18,000.

NOFEB plays a significant role in the Federal community, serving as a conduit for collaboration and resource sharing, a point of contact for information dissemination, and a source for providing assistance on issues of concern to our Federal community as a whole: emergency preparedness, workforce development and government collaboration and outreach.

Under the leadership of Dr. Bhatnagar, the Policy Committee will fully support all of the initiatives and activities of the NOFEB.

Congratulations Deepak!

Terri Von Hoven is the new SRRC webmaster, taking on her new role after Elena Graves' retirement.

New Orleans Area Events

Submitted by: Terri Von Hoven

February New Orleans Area Festivals	City	Date
Tet Fest at Mary Queen of Vietnam Church	NOLA	Feb 7-9
Black Heritage Festival	Lake Charles, LA	Feb 8
Zydeco Superfest	Marksville, LA	Feb 8
Rock 'n' Roll Marathon	New Orleans, LA	Feb 8
New Orleans Boat Show	Pontchartrain Center	Feb 14-16
Local Uproar Free Comedy Night	AllWays Lounge, NOLA	Feb 22
Courir de Mardi Gras	Church Point, LA	Feb 22-23

MARDI GRAS is on February 25. See parade schedule below:

Sat, Feb 1	Krewe of Chewbacchus, 7 pm, Marigny
Fri, Feb 7	Krewe Boheme, 7 pm, French Quarter
Sat, Feb 8	Krewe du Vieux, 6:30 pm, krewedelusion, 7 pm, French Quarter, Marigny
Sun, Feb 9	Krewe of Nefertiti, 11 am, NOLA East; Krewe of Little Rascals, noon, Metairie; tit Rex, 4.30 pm, Marigny
Fri, Feb 14	Krewe of Cork, 3pm, French Quarter; Oshun, 6, Cleopatra, 6:30 pm, Alla, 7 pm Uptown; Krewe of Excaliber, 6:30 pm, Metairie
Sat, Feb 15	Knights of Adonis, 11:45 am, Westbank; Krewes of Pontchartrain, Choctaw, Freret, starting at 1 pm Uptown, Krewes of Sparta and Pygmalion, starting at 5:30 Uptown; Mad Hatters, Centurians 5pm, Metairie; Nemesis 1pm, Chalmette
Sun, Feb 16	Krewes of Femme Fatale, Carrollton, King Arthur, starting 11 am, Uptown; Barkus, 2 pm, French Quarter; Atlas, Kings, 4 pm, Metairie
Wed, Feb 19	Krewes of Druids, 6:15 pm, Nyx, 6:45 pm, Uptown
Thurs, Feb 20	Krewes of Babylon, 5.30 pm, Chaos, 6:15 pm, Muses, 6:30 pm, Uptown
Fri, Feb 21	Krewes of Bosom Buddies, 11:30 am French Quarter; Hermes, 5:30 pm, d'Etat, 6:30, Morpheus, 7, Uptown
Sat, Feb 22	Krewes of NOMTOC, 10:45, Westbank; Iris, 11 am. Tucks, noon, Uptown; Endymion, 4:15 pm, Mid-City; Isis 6 pm, Kenner
Sun, Feb 23	Krewes of Okeanos, 11am, Mid-City, 11:45am, Thoth, noon, Bacchus, 5:15pm, Uptown; Athena 5:30pm, Pandora 6:30pm, Metairie
Mon, Feb 24	Krewes of Proteus 5:15 pm, Orpheus, 6 pm Uptown
Tues, Feb 25	Krewes of Zulu, 8 am. Rex, 10 am, Elks Orleans, follows, Crescent City, follows Uptown; Argus, 10 am, Elks Jefferson, follows, Jefferson follows

Recent SRRC Publications

Submitted by: Suhad Wojkowski

Full text pdfs of SRRC publications are available in the Eprints database via "Library" link on the SRRC Intranet page: http://nola.srrc.usda.gov:8000/srrcmenf.htm

Click on the article's title below to launch the pdf from Eprints.

Cao, Heping and Sethumadhavan, Kandan (2020) <u>Regulation of Cell Viability and Anti-inflammatory</u> <u>Tristetraprolin Family Gene Expression in Mouse Macrophages by Cottonseed Extracts.</u> Scientific Reports, 10 (775). pp. 1-11.

Chang, Perng-Kuang and Cary, Jeffrey W. and Lebar, Matthew (2020) <u>Biosynthesis of Conidial and Sclerotial Pigments in Aspergillus Species</u>. Applied Microbiology and Biotechnology, https://doi.org/10.1007/s00253-020-10347-y. pp. 1-10.

Cole, Marsha and Eggleston, Gillian and Gaines, Deriesha and Heckemeyer, Matthew and Klasson, K. Thomas (2019) <u>Development of an Enzyme Processing Cocktail for Sweet Sorghum Processing By-Products.</u> In: Proceedings of the Advances in Sugar Crop Processing and Conversion 2018 Conference, May 15-18, 2018, New Orleans, Louisiana.

He, Zhongqi and Olk, Daniel C. and Tewolde, Haile and Zhang, Hailin and Shankle, Mark (2020) Carbohydrate and Amino Acid Profiles of Cotton Plant Biomass Products. Agriculture, 10 (2). pp. 1-14.

Hillyer, Matthew B. and Nam, Sunghyun and Condon, Brian (2020) *Quantification and Spatial Resolution* of Silver Nanoparticles in Cotton Textiles by Surface-Enhanced Raman Spectroscopy (SERS). Journal of Nanoparticle Research, 22 (42). pp. 1-14.

Hruska, Zuzana and Yao, Haibo and Kincaid, R. and Tao, Feifei and Brown, Robert L. and Cleveland, Thomas E. and Rajasekaran, Kanniah and Bhatnagar, Deepak (2020) <u>Spectral-Based Screening Approach Evaluating Two Specific Maize Lines With Divergent Resistance to Invasion by Aflatoxigenic Fungi.</u>
Frontiers in Microbiology, 10 (3152). pp. 1-11.

Klasson, K. Thomas and Qureshi, Nasib and Heckemeyer, Matthew and Eggleston, Gillian (2019) <u>Biobutanol Production from Sweet Sorghum Biorefinery Byproducts.</u> In: Proceedings of the Advances in Sugar Crop Processing and Conversion 2018 Conference, May 15-18, 2018, New Orleans, Louisiana.

Lima, Isabel M. and White, Paul (2020) <u>Improved Sugar Yields Found by Application of Bagasse and Leaf Residue Biochar as Soil Amendment</u>. Sugar Journal, 82 (8). pp. 12-17.

O'Neill, Maura J. and Chan, King and Jaynes, Jesse M. and Knotts, Zachary and Xu, Xia and Abisoye-Ogunniyan, Abisola and Guerin, Theresa and Schlomer, Jerome and Li, Dandan and Cary, Jeffrey W. and Rajasekaran, Kanniah and Yates, Clayton and Kozlov, Serguei and Andresson, Thorkell and Rudloff, Udo (2020) <u>LC-MS/MS Assay Coupled With Carboxylic Acid Magnetic Bead Affinity Capture to Quantitatively Measure Cationic Host Defense Peptides(Hdps) in Complex Matrices With Application to Preclinical Pharmacokinetic Studies.</u> Journal of Pharmaceutical and Biomedical Analysis, 181 (113093). pp. 1-10.

Pagliari, Paulo H. and Wilson, Melissa and He, Zhongqi (2019) <u>Animal Manure Production and Utilization: Impact of Modern Concentrated Animal Feeding Operations.</u> In: Animal Manure: Production, Characteristics, Environmental Concerns and Management. ASA Special Publication 67. pp. 1-14.

Tao, Feifei and Yao, Haibo and Hruska, Zuzana and Liu, Yongliang, Rajasekaran, Kanniah and Bhatnagar, Deepak (2019) <u>Detection of Aflatoxin B1 on Corn Kernel Surfaces Using Visible-Near Infrared Spectra.</u>
Journal of Near Infrared Spectroscopy, http://dx.doi.org/10.1177/0967033519895686. pp. 1-11.